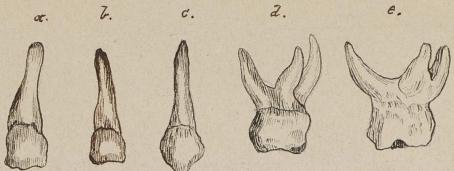


An Essay
on
"The teeth and their relation
to the Human Economy"
Respectfully submitted to the
Faculty
of the
Homoeopathic Medical College
of
Pennsylvania
On the First day of February
One thousand eight hundred
and fifty seven
By
J. G. Stehman,
of
Pennsylvania.

b. Lateral Incisor.

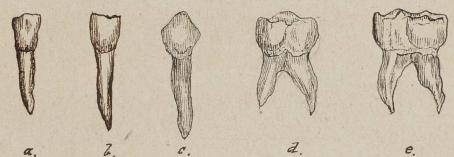
c. Canine.

d. First Molar.



a. Central Incisor.

e. Second Molar.



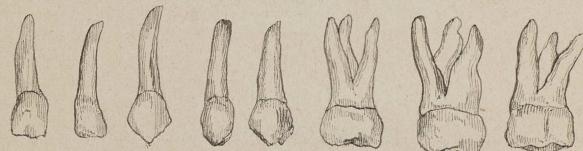
TEMPORARY TEETH.

c. Cuspid or Canine.

d. First Bicuspid.

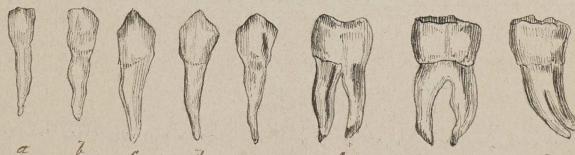
e. Second Bicuspid.

f. First Molar.



b. Lateral Incisor.

g. Second Molar.



a. Central Incisor.

PERMANENT TEETH.

J.G.S.

The
Teeth and
their
Relation to the
Human
Economy

By
T. G. Rehman

1857

21

The teeth and their Relation to the Human Economy.

The teeth have been by some anat-
omists classed with the bone, but
as they differ both in structure and
development from bone, they are
not any longer considered as such
but as appendages of the digestive
apparatus.

The peculiarities, which distin-
guish them from bone are these:

The primitive changes known to the bone, are entirely unknown to the teeth; they have no Haversian canals; they are composed of three substances, two resembling bone, and the other wholly unlike it called enamel; the ossific portion of the teeth has more earthy matter than bone, and the enamel has no gelatin.

Man has two successions of teeth, the first are confined to childhood, and are called temporary, or deciduous, the second belong to manhood, and continue to old age, these are called permanent.

The temporary teeth number twenty, and are divided into three classes, eight incisor, four canine, and eight

molar, the permanent number thirty two, and are divided into four classes, eight incisor, four canines, eight bicuspidz, and twelve molarz.

Each tooth is divided into a crown; neck, and root or fang. The crown is that portion above the gum, the root is that which is received in the alveolar socket, and the neck is the constricted portion connecting the two.

Structure and Origin of the teeth.

The teeth are composed of three different substancez (as mentioned heretofore) viz Dentine, or tooth ivory, Enamel, and Cementum.

The dentine constitutes the greatest part of the tooth, and differz from bone

in having less animal matter and de-
stitute of medulla, blood vessels, Haversian
canals &c.

The enamel forming the crust covering
the crown, being thickest on the top taper-
ing gradually toward the root at its
terminus, the cementum commences,
gradually thickening to the apex of the
fang, and also lines the upper wall
of the cavity pulpa.

At the base of the crown of all the
teeth, there is a cavity which is called the cav-
ity pulpa, being continuous with the
canal that opens at the apex of each
fang; in this cavity is a pulp which re-
ceives its vessels and nerves through said
canal.

The rudiments of the teeth have been seen, as early as the seventh week of utero-gestation, when the germ of the first deciduous molar can be seen assuming the form of a granular papilla, situated in the alveolar groove, bounded anteriorly by the anterior alveolar ridge, posteriorly by the posterior alveolar ridge.

At the end of the seventh week the germs of all the deciduous teeth can be distinctly seen; these granular papilla, in progress of development assume the character of pulp, and complete their form about the fourth or fifth month of utero-gestation, when fully formed, constant depositions of dentine take place, in the direction of the pulp.

ow the surface of the pulp untill the structure is completed from without inwardly.

If the tooth be an incisor or canine, the lamina will have the shape of a cone, if a molar it will have as many cones as there are tubercles.

The enamel is formed simultaneously with the牙齒, assuming the form of a laminated tissue, by the crystalline substance being secreted into the meshes of the vascular lining membrane of the sack, from the centre of the crown to the circumference, being directly opposite to that of the dentine.

Cementum is formed last, probably by a secretion of the inner sack, which envelopes the fang, acting as its perosteum.

Eruption

When the crown of the tooth is formed covered with enamel, and the fang grown to the bottom of the socket, it thereby its pressure causes the reflected portion of the sack, and tooth to approach each other, and the latter to pass through it and the gums.

This sack is formed by the mucous membrane being carried before the alveolar ridges, approaching each other, they form a follicular sack enveloping the papilla, the opening is closed finally by opercular.

After the eruption of the tooth the sack has assumed its original follicular form, being continuous with the mucous membrane of the mouth, this sack then

beginning to shorten more rapidly than the fang grows, whereby the tooth is more quickly drawn up, leaving an open space between the unfinished root, and the bottom of the socket, in which the completion is more speedily affected.

Between the deciduous, and permanent teeth a connection exists (the gubernaculum dentis) at an early period of formation of the deciduous tooth, its investing membrane or sack gives off, a process containing a portion of the pulp of the parent sack, this constitutes the rudiment of the permanent tooth.

This process assumes a distinct form, though still connected to the parent sack by a peduncle, which becomes less essential as the progress of development goes on.

and is finally atrophied to a mere thread, when in this state it is considered as a gubernaculum to the permanent tooth by some anatomists.

The periods of appearance of the teeth are very irregular, commencing about the sixth month, and ending about the twenty-fourth; the permanent from the sixth to the twenty-first year.

I now purpose treating in a concise manner some of the pathological conditions of the system during dentition; the affections of this period are numerous.

Diarrhoea frequently occurs as one of the first affects from irritation of the tooth within the dental sack.

Convulsions occur through the cerebral

and spinal nerves, causing congestion with accelerated pulse.

Local inflammation of the mouth producing thickness of the mucous surface frequently extending to the Eustachian tube producing temporary deafness which may be taken for some congenital defect.

Derangement of the digestive apparatus. Skin affections.

Fits involving loss of consciousness and lesions of the brain, producing permanent impairment of the mental faculties.

All these may occur, and many more, but when any do occur during dentition, the true character of the mouth should be obtained if possible.

A few words in regard to cutting the gum may not be amiss here.

When teeth are slow in making their appearance, and set up a great deal of irritation, it is good practice to cut the gums.

Before you operate, you must be sure that the tooth is fully formed, if it is not, bad consequences may be the result. again, when you operate, do not merely scarify the gums, and set up new inflammation, but cut down on the tooth to open the sack, its investing membranes. Here is where the difficulty lies, the tooth in trying to rupture the membrane, is what produces the irritation.

We have shown some disturbances which occur during dentition, but difficulties stop not here. we very frequently see females during gestation and menstruation troubled with toothache in healthy teeth, this goes to prove that there is a sympathetic connection between the uterus, its appendages, and the teeth. when such a strong sympathy exists between those organs, is it not possible that diseased teeth may affect the uterus during gestation, producing abortion?

This is a mooted point among Physiologists. further investigations are necessary to establish it as a fact.

But diseased teeth may affect the foetus in utero, by arousing latent dyscrasias, it acting upon that organ at this period when it is extremely

sensitive to all impressions.

The uterus is not the only sufferer, but the whole digestive apparatus feels the stroke, and gives unmistakable signs of oppression by the poisonous matter of the teeth, being carried thither by the saliva and food, by these means colics of infants have been produced, through the nurse who had carious teeth while nursing by first tasting every spoonfull, then giving it to the infant after it was impregnated with poison from her teeth.

Again this constant flow into the system, may arouse latent dyscrasias, which often manifest itself in some outward form

The respiratory organs are affected by the constant inhalation of air poisoned by the teeth. There is no doubt but that it is the exciting cause of phthisis under favorable circumstances.

Facial neuralgias are frequent occurrences of decayed teeth the seat of this affection is generally in one of the trigemini or fifth pair of nerves, these are distributed to the superior and inferior maxillaries, tongue eyes and integument.

are very impeded from following decayed teeth the period of emerging filling with quick dentin and its

udden change of temperature and the like may easily

Many opinions are entertained in regard to the causes of their decay.

The one most plausible to my mind arises from the lamentable fact of our race having been mineralized for many centuries, and thus the morcurial cachexia is transmitted from generation to generation.

Likewise the pernicious practice of drugging children with coffee affects them materially, they come out slowly, and with convulsions, and when out are very imperfectly formed, fall out decayed before the period of changing.

Trifling with quack dentists and dentifrices.

Sudden changes of temperature, and the use of many acids &c.